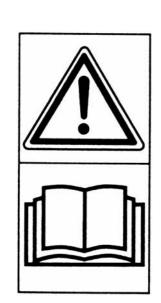


LIFTING CROSS-BEAM FOR FOUR-COLUMN AND SCISSORS LIFT



Art. 451 S
Art. 451 SE
Art. 451/A
Art. 451/A SE
Art. 451/A SE
hydraulic drive

USE AND MAINTENANCE INSTRUCTIONS SPARE PARTS MANUAL



Before using the machine, attach the adhesive labels included in this booklet to the cross-beam, referring to the illustration shown below.

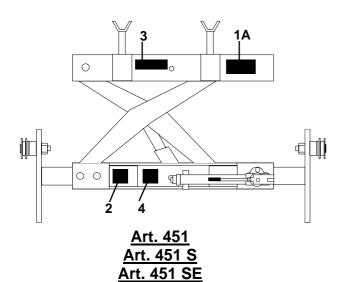


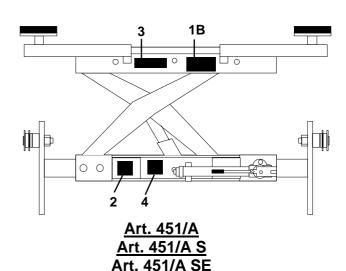
If the labels are not attached, all warranty conditions will be invalidated and the manufacturer will not be held responsible for any damage caused by using the cross-beam.

WARNING

Note: If one or more labels on the lift become damaged, illegible or lost, request the position No. needed to replace it.

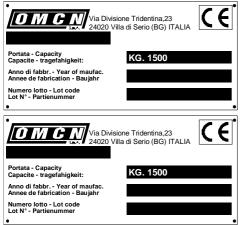
Then replace the new label at the point indicated.





KG. 1500

1A



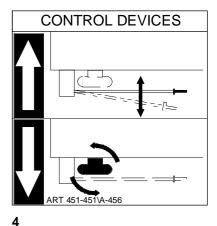
USE AND SAFETY RULES

- It is prohibited to lift loads which exceed the value indicated by the manufacturer.
- It is prohibited to climb on the vehicle while it is lifted.
- Before each lifting operation, make sure that the supports are correctly positioned under the vehicle. The operator must check that the vehicle is properly
- supported while being lifted. Use the cross-beam only for partially lifting the vehicle.

MAINTENANCE

- Keep the carriage absolutely clean
- Periodically oil the pins and axes of the suppor
- To add oil to the cylinder, use "AGIP ACER 22" or a equivalent product.

Carefully read the instruction booklet before performing any maintenance. ART.203-451-451\A-455-455\A-456-457



1B 2 ATTENTION !!! WHEN READING THE MANUAL THE **HAZARD** SIGNAL IS ENCOUNTERED.







THE SIGNAL SHOWS THE PRESENCE OF MORE OR LESS SIGNIFICANT **HAZARD** CONDITIONS.

THE **HAZARD** SIGNAL ARE AT 3 LEVELS:



Lack of compliance with this signal cause very serious health risk; death or permanent medium to long term injuries.



Lack of compliance with this signal could cause very serious health risk; death or permanent medium to long term injuries.



Lack of compliance with this signal cold cause personal injuries or damage to the machine



A 07 04

INSTRUCTION BOOKLET

CONTENTS:

- 1.0 GENERAL
- 2.0 SPECIFIC USE
 - 2.1 Product diagram and dimension of the models
 - 2.2 Capacity-Weight table
- 3.0 GENERAL SAFETY RULES
- 4.0 TRANSPORT
- 5.0 UNPACKING
- 6.0 MAIN TECHNICAL FEATURES
- 7.0 START-UP
- 8.0 OPERATION
 - 8.1 Ascent
 - 8.2 Descent
- 9.0 ROUTINE MAINTENANCE
- 10.0 TROUBLESHOOTING TABLE
- 11.0 USE
- 12.0 EXTENDED STORAGE
- 13.0 SCRAPPING
- 14.0 STANDARD IDENTIFICATION PLATE
- 15.0 TESTS
- 16.0 HYDRAULIC DIAGRAM WITH PARTS
- 17.0 EXPLODED VIEW OF PUMP-CYLINDER UNIT
- 18.0 CROSS-BEAM EXPLODED DIAGRAM (451 451 S 451 SE)
- 19.0 CROSS-BEAM EXPLODED DIAGRAM (451/A 451/A S 451/A SE)
- 20.0 CYLINDER EXPLODED DIAGRAM (451 451 S 451 SE 451/A 451/A S 451/A SE)
- 21.0 EXTRA EQUIPMENTS

1.0 GENERAL

This booklet is an integral part of the product.

Carefully read the warnings and instructions contained in this booklet since they provide important information concerning SAFE USE AND MAINTENANCE.

The lifting cross-beam has been built in conformity to the European Standard EN 292-1, EN 292-2, EN 414, CNR 10011, EN1493, 98/37/CE directives.

Keep this booklet in a safe place for future reference.

2.0 SPECIFIC USE

The cross-beam item 451 - 451 S - 451 SE and cross-beam item 451/A - 451/A SE are tools designed to be used as a means for partially lifting a 4-wheel vehicle.

The cross-beam must be placed between the two lifting platforms as an adequate support on the special sliding guides so that it is possible to lift the two wheels located on the same axle of the vehicle.

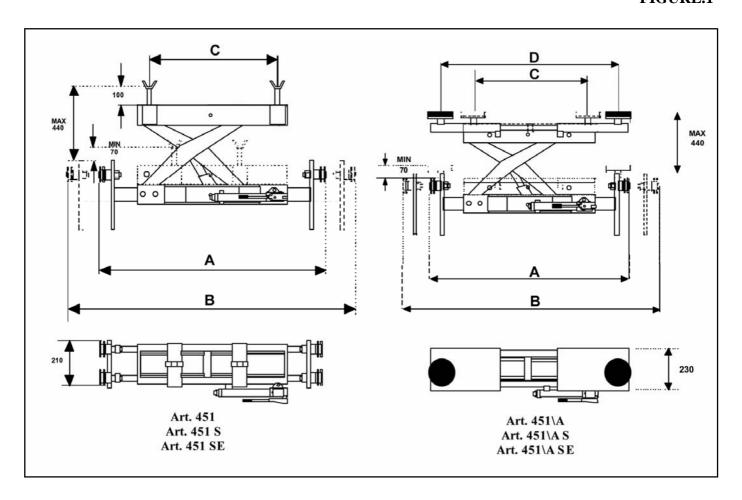
The maximum load that can be lifted by the cross-beams is indicated on the manufacturer's identification plate and reported in the "Capacity-Weight" table (figure 2).

- This device shall only be used for the purpose for which it was expressly designed.
- Any use other must be considered as improper and thus prohibited.
- The manufacturer will not be held RESPONSIBLE for damage to persons, animals or things, caused by use that is improper or does not conform to the instructions presented in this manual.
- The lifting cross-beam must never be used if the room temperature is less than 15°C.



A 07 04

2.1 Product diagram and dimension of the models FIGURE.1

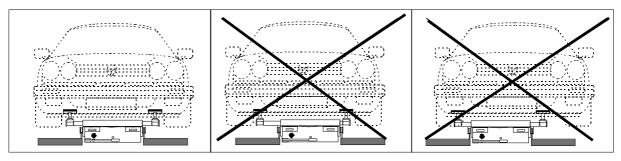


Art.	Capacity [kg]	Weight [kg]	A [mm]	B [mm]	C [mm]	D [mm]
451	1500	70	925	1255	760	
451/A	1500	75	930	1260	760	1235
451 S	1500	70	675	1015	565	
451 SE	1500	70	675	1015	565	
451/A S	1500	75	680	1010	565	965
451/A SE	1500	75	680	1010	565	965

2.2 Capacity weight table FIGURE. 2

NOTE: The characteristics and the data reported in the table are indicative. The manufacturer reserves the right to make changes without advance notice, without affecting the safety devices.

3.0 GENERAL SAFETY RULES FIGURE. 3



- Only specially trained and authorized personnel are allowed to use the gantry.
- Do not lift loads heavier that those specified by the manufacturer.
- Do not get into the vehicle when the latter is uplifted.
- The operator must ensure that the vehicle is correctly positioned during the lifting run.
- Only use the gantry for the partial lifting of the vehicle.
- Any alterations or modifications of the gantry that have not been previously authorized by the manufacturer discharge the latter from any claim for damages ensuing from or referring to the above actions.
- The lift can only be used in covered areas protected from weather conditions such as: snow, rain, wind; installation is only permitted in environments where there is no danger of inflammable and explosive vapours or mixtures developing.
- When operating the lift, wear appropriate clothing as prescribed by the laws in the country where the lift will be used.
- The lift should never be used if the ambient temperature is less than + 15°C.
- The removal or alteration of safety devices constitutes a violation of the European Safety Regulations.
- Check that, during the work, no hazardous conditions arise for anybody standing next to the machine. In cases when such conditions come up, immediately stop the operations in progress.
- Check that no object is present within the lifted load area.
- In the event of operating failures coming up, immediately lock all drives and enquire on the source of the detected failures.
- For the purpose of the lifting operation, always ensure that the vehicle is stable and that the load is uniformly distributed on the bearing members.
- Ensure that the sliding rails of the gantry fit the gantry and are always kept clean.
- The rail bearing extension pieces must project off the gantries in a symmetrical way.
- Pull the hand brake of the vehicle which must be lifted before starting the raising.
- The crosspiece Art. 451 451 S 451 SE and 451/A 451/A S 451/A SE must not be pushed to the top of the guides on the footboard, to stop it at least 20 cm before the end of the guides.
- On the footboards of the lifts must be used only one crosspiece.



A 07 04

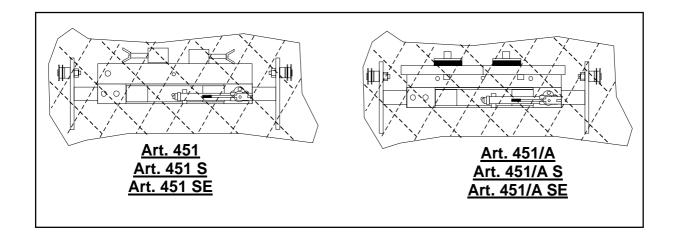
The sliding gantry is packed with detached pads. The latter are placed in the gantry and packed with the same protective material (Blister paper - Cardboard FIGURE. 4).

4.0 TRANSPORT

The packed unit is handled using special hoisting means (fork-lift trucks-small cranes), taking extreme care not to damage the various parts of the unit.

The weight of the package varies as a function of the model. Read the correct weight in the "Capacity-Weight" table.

FIGURE. 4



After removing the packing, ensure that the gantry is intact in all its components, and that no part looks damaged. In case of doubts, **do not use the gantry** and address to your dealer for technical service.

5.0 UNPACKING

Ensure that all the labels are stuck on the gantry as shown on page 2 of this handbook. If the labels are supplied in a separate envelope, please stick them on the machine as specified on page 2 of this handbook.



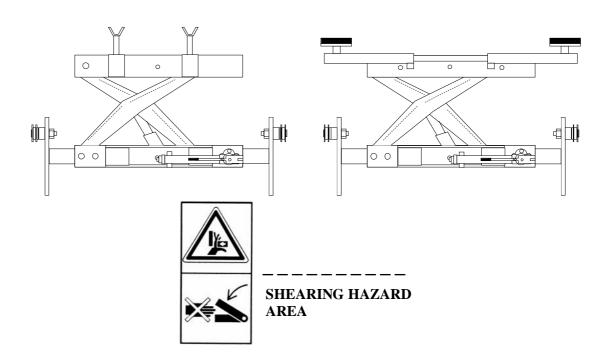
Failure to stick use and warning labels is a violation of the European Safety regulations

The packing elements must be kept out of the children's reach, since they are a potential source of hazard.

Take the above materials in the special waste collection areas, as they are not biodegradable.

6.0 MAIN TECHNICAL FEATURES

- The hydraulic pump is manually actuated.
- The force required to actuate the lever is always lower than 400 N.
- Limit switch with mechanical stop at the end of the lifting cylinder movement.
- Safety valve to maintain a constant descent speed within the limits established by current standards, regardless of the load being lifted.
- Check valve to maintain the stability of the lifting position and inhibit undesirable movements of the load.
- Safety device to prevent accidental or involuntary movement of the descent control.
- Sliding support rollers on the guides of the jack platforms.
- Extensions to adjust the vehicle support pads (451/A 451/A S 451/A SE).
- Sliding fork supports on the cross-beam (451 451 S 451 SE).
- Adjustable cross-beam width for platform support.





451 - 451 S - 451 SE:

A Place the load-bearing gantry with the sliding wheels resting on the rails of the lift boards, and adjust the gantry extension pieces in width.

NOTE: Take out the two extension of the same measure.

- B Pull out the upper extension pieces by making them run along the superior part of the cross-beam.
- C Fit the pads into the special seats in a symmetrical way.

451/A - 451/A S - 451/A SE:

A Place the load-bearing gantry with the sliding wheels resting on the rails of the lift boards and adjust the gantry extension pieces in width.

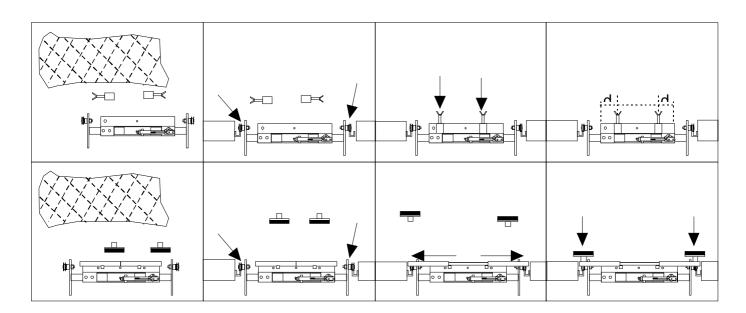
NOTE: Take out the two extension of the same measure.

- B Pull out the upper extension pieces by making them run along the slide.
- C Fit the pads into the special seats in a symmetrical way.

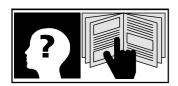


Any damages caused by a failed compliance with the above instructions cannot be charged to the manufacturer and may entail an early expiration of the guarantee.

FIGURE. 5



8.0 OPERATION





BEFORE STARTING USING THE GANTRY, THE INSTRUCTIONS GIVEN IN THIS MANUAL MUST BE THOROUGHLY READ AND FULLY UNDERSTOOD.

8.1 Lifting run

- Place the gantry under the vehicle to be uplifted, and the pads by the vehicle lifting points.
- Start the pumping action with alternating movements of the lifting drive lever; the cylinder with the pantograph frame of the gantry will start rising.
- If the lever movements stop during the lifting run, the gantry cylinder will stop in the position so far reached, and the check valve stabilizes this position.
- The lifting stops automatically once the uppermost point has been reached.
- Avoid keeping on moving the lifting drive lever when the lifting run is over.

NOTE: BEFORE WORKING UNDER THE VEHICLE TO PUT AS SUPPORT OF THE CAR N°2 FIXING STANDS WITH TOTAL CAPACITY OF 1500 KG. AT LEAST.

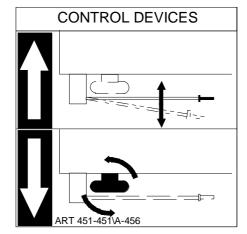
8.2 Lowering run

- Remove the supporting stands under the vehicle.
- Turn the lowering drive wheel counter clockwise; the cylinder with the pantograph frame of the gantry will start the lowering run.
- If the wheel is released during the lowering run, the gantry cylinder will stop in the position so far reached, and the check valve will stabilize this position.
- The lowering stops automatically once the lowest point has been reached.
- Avoid keeping on moving the lowering drive wheel when the lowering run is over.
- The lowering speed is automatically adjusted to fall within the limits set forth by the regulations in force.



Do not place shims or spacers between the pad and the vehicle resting point.

FIGURE. 6









The operations contained in this paragraph are the only ones that can be carried out by the operator or a person authorized by the latter. All those operations that are not mentioned in this paragraph are to be considered as extraordinary operations, which must therefore be carried out by qualified staff or by the manufacturer.

To ensure that the machine operates efficiently and correctly, the operator must follow the instructions listed below, cleaning the machine and carrying out routine maintenance.

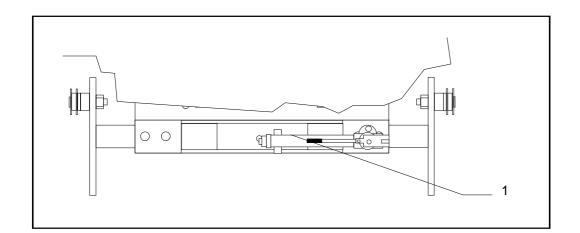


The cleaning operations must be carried out in the utmost safety conditions, To this aim, only carry them out when the gantry is not in the work position.

To add oil, which is required if the lifting structure does not reach the declared height.

- First completely lower the structure, unscrew the oil filler plug (1 FIG. 7) on the cylinder, add oil until reaching the level (FIG. 7). Use "Agip Acer 22" oil or an equivalent product.
- Make the cross-beam carry out a complete up and down movement, without the filler plug, so that any excess oil will be eliminated.
- Replace the plug in the filler hole.
- Repeat the operation if the structure still does not reach the declared height.
- 1 The cross-beam and the jack must always be perfectly clean.
- 2 Periodically oil the pins of the support wheels.
- 3 The moving parts of the pantograph structure must always be clean and greased.

FIGURE. 7



10.0 TROUBLESHOOTING TABLE

PROBLEMS	POSSIBLE CAUSES	SOLUTIONS	
The cross-beam does not lift the declared capacity.	 Dirty or faulty max. valve. Open or dirty descent control valve. Worn cylinder gaskets. 	 Send the pump to the authorised dealer maintenance centre. Clean and disassemble the valve casing, connected to the descent control device, replace it if defective. Disassemble the cylinder-pump unit and send it to the authorised dealer maintenance centre. 	
During the pumping action the structure rises but de- scends immediately to the previous position.	 No oil in reservoir. Dirty or defective check valve. 	 Add oil to the reservoir through the plug as indicated in the rou- tine maintenance chapter. Disassemble the valve inside the pump, clean it with compressed air and gasoline, handle with care. 	
The cross-beam rises only slightly with each pumping action.	 Leakage in the pumping gaskets. No oil in reservoir. 	 Remove the casing of the pumping device containing the gaskets and replace them. Add oil to the reservoir through the plug as indicated in the routine maintenance chapter. 	
The cross-beam does not remain in position.	 Leakage in the cylinder gaskets. Dirty or defective descent valve. 	 Disassemble the pump-piston unit, replace the cylinder gaskets. Or send the unit to the authorised dealer. Remove the valve casing, clean it with compressed air and gasoline, replace it while handling with care. 	
Excessive descent speed.	Defective descent control valve.	1 Remove the descent valve located behind the cylinder hydraulic fitting, clean it, check its operat- ing condition, and replace it if damaged.	



Note: The max. pressure valve is sealed by the manufacturer. For any malfunctions in the valve, send the device or the pump-cylinder unit to the maintenance centre of the authorised dealer.



A 07 04 13

The cross-beam must only be used by authorised personnel. Remember that any use by persons who are not familiar with the procedures outlined in this manual might lead to dangerous situations.

11.0 USE

For any assistance, contact the authorised service centres and request original spare parts.

The spare parts list is attached to this instruction booklet.

If the machine will not used for an extensive period, disconnect all supply sources, empty the oil from the pump reservoir and protect all those parts which might be damaged by dust deposits.

12.0 EXTENDED STORAGE

If this device will no longer be used, it should be made inoperative.

13.0 SCRAPPING

If the cross-beam is abandoned and eliminated, it must be treated as a special waste and must be dismantled into its homogeneous parts. Such parts must then be disposed according to the local current laws.

14.0 STANDARD IDENTIFICATION



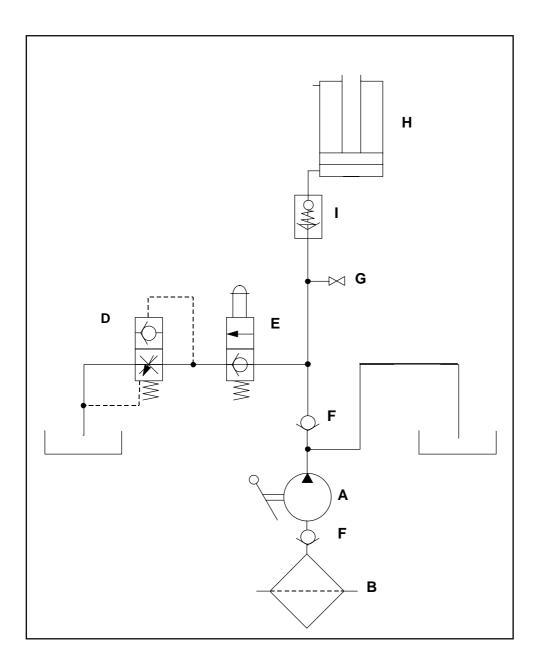
15.0 TESTS

Before being packed, the cross-beam underwent functional testing as described below:

- Lifting functional test and parts in general.
- Descent control valve functional test.
- Max. pressure valve test and calibration.

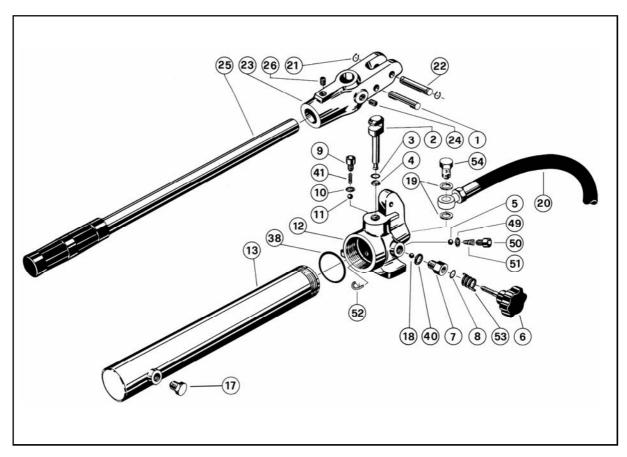


16.0 HYDRAULIC DIAGRAM WITH COMPONENTS FIGURE 8



- A MANUAL PUMP
- **B** OIL FILTER
- **D** LOWERING CONTROL VALVE
- **E** LOWERING VALVE
- F CHECK VALVE
- G PRESSURE GAUGE CONNECTION POINT
- **H** CYLINDER
- I PARACHUTE VALVE

17.0 EXPLODED VIEW OF PUMP-CYLINDER ASSEMBLY FIGURE 9

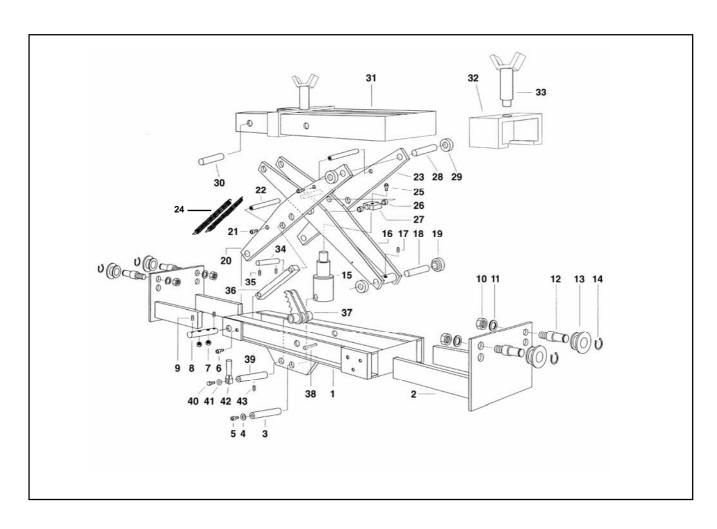


- 1 Pivot
- 2 Pump piston
- 3 OR
- 4 Gasket
- 5 Suction ball
- 6 Sealing valve closing wheel
- 7 Wheel nut
- 8 OR
- 9 Lock screw
- 10 Copper packing
- 11 Sealing ball
- 12 Pump body
- 13 Oil cup
- 17 Oil loading screw
- 18 Loading ball
- 19 Copper gasket

- 20 Rubber hose
- 21 Snap ring
- 22 Lever fulcrum pin
- 23 Pump moving lever
- 24 Extension piece fastening dowel
- 25 Lever extension handle
- 26 Extension piece fastening dowel
- 38 OR
- 40 Copper gasket
- 41 Spring
- 49 Gasket
- 50 Lock screw
- 51 Tapered spring
- 52 Oil filter
- 53 Safety lowering spring
- 54 Close pipe screw

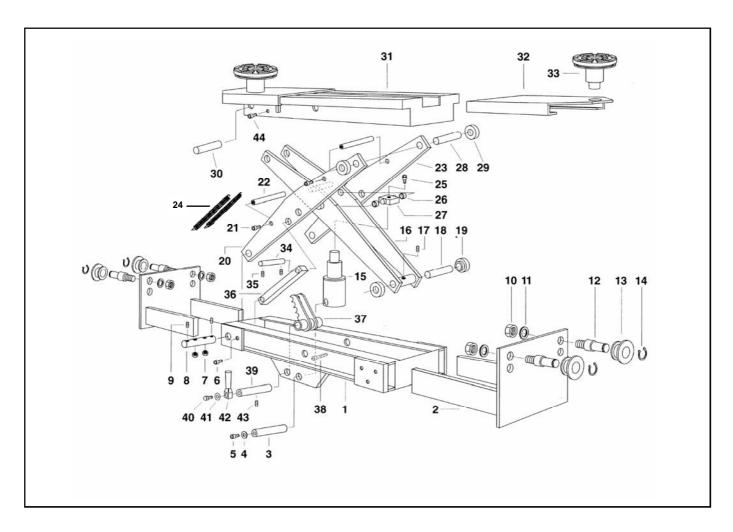


A 07 04 17



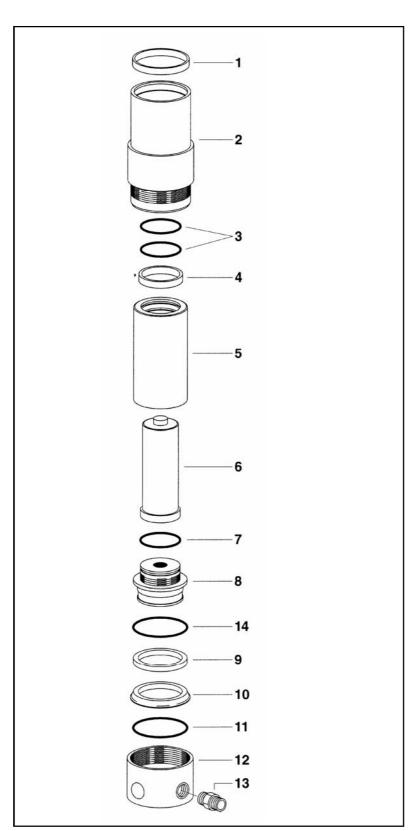
1 FRAME	12 PIN	23 EXTERNAL SHOULDER	34 PIN
2 EXTENSION	13 WHEEL	24 SPRING	35 DOWEL
3 PIN	14 SNAP RING	25 SCREW	36 LEVER
4 WASHER	15 JACK	26 WASHER	37 SECURITY BRACKET
5 SCREW	16 INTERNAL SHOULDER	27 CYLINDER SUPPORT	38 GRUB-SCREW
6 SCREW	17 DOWEL	28 PIN	39 PIN
7 NUT	18 PIN	29 ROLLER	40 SCREW
8 PIN	19 ROLLER	30 PIN	41 WASHER
9 DOWEL	20 EXTERNAL SHOULDER	31 MOBILE ROD	42 HANDLE
10 NUT	21 SCREW	32 SUPPORT HOLDER	43 DOWEL
11 WASHER	22 PIN	33 LOAD SUPPORT	

19.0 STRUCTURE EXPLODED DIAGRAM Art. 451/A - 451/A S - 451/A SE FIGURE. 11



1 FRAME 2 EXTENSION 3 PIN	12 PIN 13 WHEEL 14 SNAP RING	23 EXTERNAL SHOULDER 24 SPRING 25 SCREW	34 PIN 35 DOWEL 36 LEVER
4 WASHER	15 JACK	26 WASHER	37 SECURITY BRACKET
5 SCREW	16 INTERNAL SHOULDER	27 CYLINDER SUPPORT	38 GRUB-SCREW
6 SCREW	17 DOWEL	28 PIN	39 PIN
7 NUT	18 PIN	29 ROLLER	40 SCREW
8 PIN	19 ROLLER	30 PIN	41 WASHER
9 DOWEL	20 EXTERNAL SHOULDER	31 MOBILE ROD	42 HANDLE
10 NUT	21 SCREW	32 SUPPORT HOLDER	43 DOWEL
11 WASHER	22 PIN	33 LOAD SUPPORT	

20.0 CYLINDER EXPLODED DIAGRAM Item. 451 - 451 S - 451 SE Item. 451/A - 451/A S - 451/A SE FIGURE. 12



- 1 LOCK RING
- 2 EXTERNAL CHAMBER
- 3 O-RING
- 4 GUIDE RING
- 5 LINER
- 6 STEM
- 7 O-RING
- 8 STEM HEAD
- 9 GUIDE RING
- 10 GASKET
- 11 O-RING
- 12 BOTTOM
- 13 NIPPLE
- 14 OR

21.0 EXTRA EQUIPMENTS

In order to get better the operations of the machine, and in the meantime to give more safety and functionality to the use of the machine, OMCN supply extra equipments suitable to the different models presented in the manual.

The different equipments suitable for every model of machine are reported on the OMCN general catalogue.

The specific instructions for the safety use of the equipment are supply with the equipment itself and are not reporter in this manual.



A 07 04

NOTES:
 NOTES.



INSTALLATION REPORT AND FUNCTIONAL TEST

ART.			
SERI	AL NUMBER:	INSTALLATION DATE:	
fun 2) Thi wh 3) The 4) Wi	ctional test and acceptance. is report was filled out exclusion jointly signs with the installer joint signature of point 2 value the this report, the installer definition of the control	register operations carried out while setting the lift at work usively by the installer in triplicate, one each for the manuller for the purpose of acceptance of the abovementioned lift alidates the lift's warranty contract. eclares to have correctly carried out the installation and fun maintenance and spare parts manual enclosed with this doc	ufacturer, the dealer and user, it.
5.0	TES	STING AND CONTROL OPERATIONS	CARRIED OUT
5.1	START RAISING		
5.2	START DESCENT		
5.3	FUNCTIONAL TEST OF	THE SLIDING MOBILE PARTS	
5.4	TEST OF EXTENSIONS	OF THE SUPPORTING GUIDES (SLIDING)	
5.5	TEST THE OIL LEVER INTO THE TANK		
5.6	TEST THE POSITION AND THE STABILITY OF PADS AND BRACKETS VEHICLE SUPPORT		
5.7	TEST OF THE CALIBRA	TION OF THE MAX PRESSURE VALVES	
5.7	TEST OF THE DESCENT SPEED OF THE CROSSPIECE		
5.8	CHECK OF DATA ON EC	C NAMEPLATE	
5.9	CHECK THAT EC NAMEPLATE DATA CORRESPONDS TO COMPLIANCE DECLARATION		
5.10	CHECK ON EXACT PLA	CING OF ADHESIVE LABELS	
 NOT	ES:		

User's stamp and signature



A 07 04

Installer's stamp and signature



24020 VILLA DI SERIO (BG) ITALY

Via Divisione Tridentina, 23 Tel: 035/423.44.11 a.r. - Customer Fax (Italy) 035/423.44.41 - 035/423.44.42 - Export Fax +39/035/423.44.49

OMCN/INTERNET:

http://www.omcn.com http://www.omcn.it e-mail: info@omcn.com e-mail: info@omcn.it

Dealer's stamp	
- · · · · · · · · · · · · · · · · · · ·	

Installer's stamp and signature

INSTALLATION REPORT AND FUNCTIONAL TEST

ART.			
SERI	AL NUMBER:	INSTALLATION DATE:	
fun 2) Thi wh 3) The 4) Wi	ctional test and acceptance. is report was filled out exclusion jointly signs with the installer joint signature of point 2 value the this report, the installer definition of the control	register operations carried out while setting the lift at work usively by the installer in triplicate, one each for the manuller for the purpose of acceptance of the abovementioned lift alidates the lift's warranty contract. eclares to have correctly carried out the installation and fun maintenance and spare parts manual enclosed with this doc	ufacturer, the dealer and user, it.
5.0	TES	STING AND CONTROL OPERATIONS	CARRIED OUT
5.1	START RAISING		
5.2	START DESCENT		
5.3	FUNCTIONAL TEST OF	THE SLIDING MOBILE PARTS	
5.4	TEST OF EXTENSIONS	OF THE SUPPORTING GUIDES (SLIDING)	
5.5	TEST THE OIL LEVER INTO THE TANK		
5.6	TEST THE POSITION AND THE STABILITY OF PADS AND BRACKETS VEHICLE SUPPORT		
5.7	TEST OF THE CALIBRA	TION OF THE MAX PRESSURE VALVES	
5.7	TEST OF THE DESCENT SPEED OF THE CROSSPIECE		
5.8	CHECK OF DATA ON EC	C NAMEPLATE	
5.9	CHECK THAT EC NAMEPLATE DATA CORRESPONDS TO COMPLIANCE DECLARATION		
5.10	CHECK ON EXACT PLA	CING OF ADHESIVE LABELS	
 NOT	ES:		



User's stamp and signature



Installer's stamp and signature

INSTALLATION REPORT AND FUNCTIONAL TEST

ART.			
SERI	AL NUMBER:	INSTALLATION DATE:	
fun 2) The wh 3) The 4) Wi	ctional test and acceptance. is report was filled out exclus o jointly signs with the installed in this report, the installer dec	egister operations carried out while setting the lift at work ively by the installer in triplicate, one each for the manuer for the purpose of acceptance of the abovementioned lift dates the lift's warranty contract. lares to have correctly carried out the installation and fundamental and spare parts manual enclosed with this documental acceptance and spare parts manual enclosed.	afacturer, the dealer and user, t. ctional test in their entirety as
5.0	TEST	ING AND CONTROL OPERATIONS	CARRIED OUT
5.1	START RAISING		
5.2	START DESCENT		
5.3	FUNCTIONAL TEST OF T	HE SLIDING MOBILE PARTS	
5.4	TEST OF EXTENSIONS OF	F THE SUPPORTING GUIDES (SLIDING)	
5.5	TEST THE OIL LEVER IN	TO THE TANK	
5.6	TEST THE POSITION AND AND BRACKETS VEHICL	O THE STABILITY OF PADS E SUPPORT	
5.7	TEST OF THE CALIBRAT	ON OF THE MAX PRESSURE VALVES	
5.7	TEST OF THE DESCENT S OF THE CROSSPIECE	SPEED	
5.8	CHECK OF DATA ON EC	NAMEPLATE	
5.9	CHECK THAT EC NAMEP DECLARATION	LATE DATA CORRESPONDS TO COMPLIANCE	
5.10	CHECK ON EXACT PLAC	ING OF ADHESIVE LABELS	
 NOT	TES:		

OMCN

User's stamp and signature

